Trademark Information

LAUNCH is a registered trademark of LAUNCH TECH CO., LTD. (also called LAUNCH for short) in China and other countries. All other LAUNCH trademarks, service marks, domain names, logos, and company names referred to in this manual are either trademarks, registered trademarks, service marks, domain names, logos, company names of or are otherwise the property of LAUNCH or its affiliates. In countries where any of the LAUNCH trademarks, service marks, domain names, logos and company names are not registered, LAUNCH claims other rights associated with unregistered trademarks, service marks, domain names, logos, and company names. Other products or company names referred to in this manual may be trademarks of their respective owners. You may not use any trademark, service mark, domain name, logo, or company name of LAUNCH or any third party without permission from the owner of the applicable trademark, service mark, domain name, logo, or company name. You may contact LAUNCH by visiting Launch at http:// www. cnlaunch. com, or writing to LAUNCH, Xinyang Building, Bagua 4th Road, Shenzhen, Guangdong Province, P. R. C., to request written permission to use Materials on this manual for purposes or for all other questions relating to this manual.

Copyright Information

Copyright © 2000 by LAUNCH TECH. CO., LTD. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of LAUNCH. The information contained herein is designed only for the use of this unit. LAUNCH is not responsible for any use of this information as applied to other units. Neither LAUNCH nor its affiliates shall be liable to the purchaser of this unit or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: accident, misuse, or abuse of this unit, or unauthorized modifications, repairs, or alterations to this unit, or failure to strictly comply with LAUNCH operating and maintenance instructions.

LAUNCH shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original LAUNCH Products or LAUNCH Approved Products by LAUNCH.

General Notice

- Other product names used herein are for identification purposes only and may be trademarks of their respective owners. LAUNCH disclaims any and all rights in those marks.
- There is a possibility that this unit is inapplicable to some of the vehicle models or systems listed in the diagnosis section due to different countries, areas, and/or years. Do not hesitate to contact LAUNCH if you come across such questions. We are to help you solve the problem as soon as possible.

Disclaimer

- To take full advantage of the unit, you should be familiar with the engine.
- All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication. The right is reserved to make change at any time without notice.

Table of Contents

Introduction..... 1

Select Diagnostic Connector..... 1

Diagnostic Socket Location..... 1

Pin Definitions..... 1

Connection..... 1

Operation..... 2

Entering Function Menu..... 2

Read Trouble Code..... 4

Clear Trouble Code..... 4

Read Data Stream..... 5

Introduction

X-431 is the most advanced automobile diagnostic unit in the world at present. Please refer to X-431 User's Manual for its features, hardware configuration, printer operation, button description, conditions for test, etc.

Here we describe the operation procedure for Porsche diagnostic program.

Select Diagnostic Connector

Porsche vehicle is equipped with OBDII-16PIN diagnostic socket. Therefore, select OBDII-16PIN diagnostic connector for test.

Diagnostic Socket Location

The OBDII-16PIN diagnostic socket is usually located in the cab under the instrument, but the location may vary for different vehicle type.

Pin Definitions

OBDII-16PIN Diagnostic Socket

The OBDII-16PIN diagnostic socket is as shown in Figure 01.

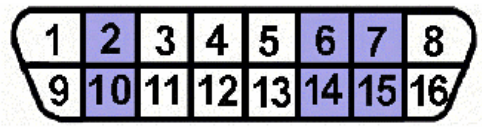

Figure 01

PIN definition of 16PIN OBDII diagnostic socket

PIN	Definition
1	Manufacturer's discretion
2	SAE J1850 Line (Bus +)
3	Manufacturer's discretion
4	Chassis Ground
5	Signal Ground
6	Manufacturer's discretion
7	ISO 9141 K Line
8	Manufacturer's discretion
9	Manufacturer's discretion
10	SAE J1850 Line (Bus -)
11	Manufacturer's discretion
12	Manufacturer's discretion
13	Manufacturer's discretion
14	Manufacturer's discretion
15	ISO 9141 L Line
16	Vehicle Battery Positive

Connection

Refer to Figure 02 for connection before performing diagnosis.

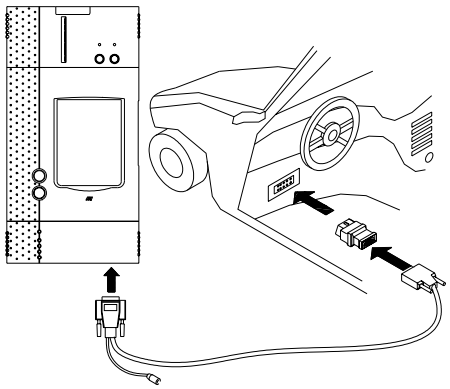

Figure 02

- Insert the CF card into the CF card slot, ***(Note: keep the face labeled "UPSIDE" upward),*** and make sure the card is fully seated.
- Insert one end of the main cable into the diagnostic socket on SMARTBOX.
- Connect the other end of the main cable to the [Smart OBDII] diagnostic connector.
- Connect the other end of the diagnostic connector to the 16PIN OBDII diagnostic socket.

Note:
If the power supply on vehicle diagnostic socket is insufficient or the power pin is damaged, you can get power in the following ways:

- ***From cigarette lighter: insert one end of the cigarette lighter cable into the lighter socket in vehicle and connect the other end to the power connector of X-431***

main cable.

- ***From battery: clamp the two clips of battery cable on the positive and negative poles of battery and insert another end of the cable into the power connector of X-431 main cable.***

- ***From power adapter: connect the power adapter to the 100-240V AC outlet with power cord. Insert the 12V DC plug of power adapter into the power connector of X-431 main cable.***

Operation

Entering Function Menu

After connection, press [**POWER**] key to start X-431.

After starting the main unit, press [**HOTKEY**] (or click [**Start**] button on **the main menu**, and select [**GAG**]→[**GD Scan**] on the pop-up menu). The screen will display the home page of vehicle diagnosis as shown in Figure 03.

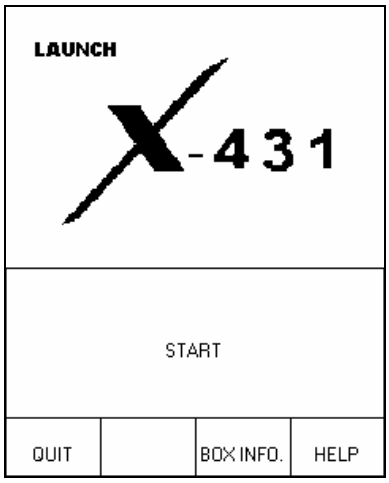

Figure 03

Button descriptions:

- ***[QUIT]: to exit the diagnostic program.***
- ***[BOX INFO.]: to display hardware and software version of SMARTBOX.***
- ***[HELP]: to display help information.***
- ***[START]: to start diagnosis.***

Click [**START**] button, the screen will display **the vehicle make menu** as shown in Figure 04.

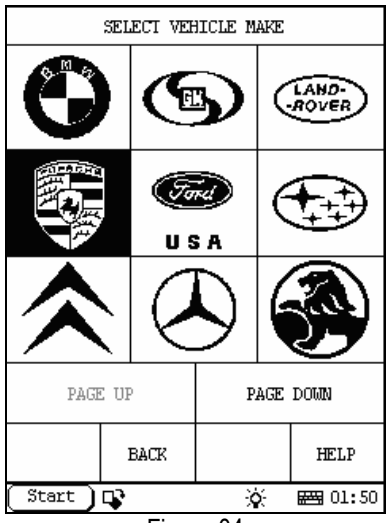

Figure 04

Button descriptions:

- ***[BACK]: to return to the previous interface.***
- ***[PAGE UP]: to display the previous page, it is inactive if the current page is the first page.***
- ***[PAGE DOWN]: to display the next page, it is inactive if the current page is the last page.***
- ***[HELP]: to display the help information.***

Click the icon of Porsche on the vehicle make menu. The screen as shown in Figure 05 will appear.

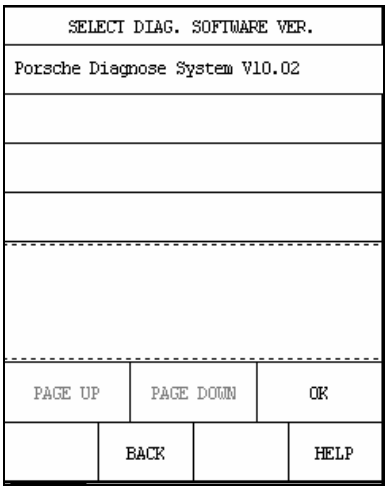

Figure 05

Click [**Porsche Diagnose System V10.02**]. The screen will display the information as shown in Figure 06.

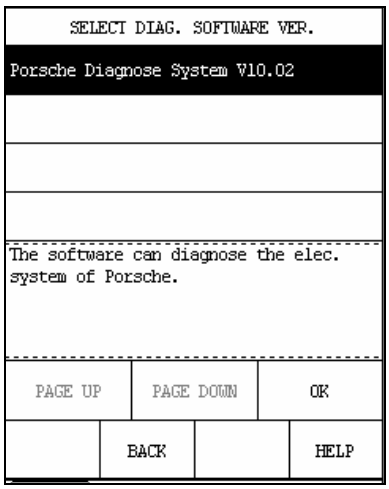

Figure 06

The software can diagnose the electronic control systems of Porsche vehicle.

Click [**OK**] button. X-431 begins to reset and check the SMARTBOX, and load the diagnostic program from the CF card. After that, the screen will display the message as shown in Figure 07.

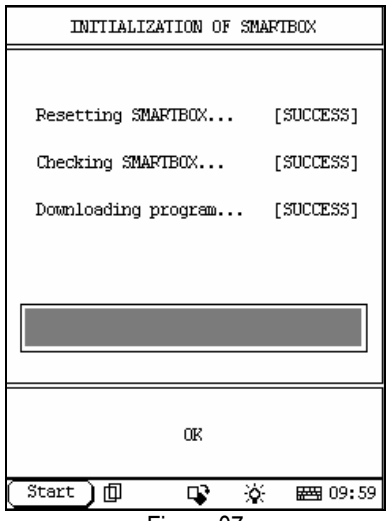

Figure 07

Button descriptions:
[OK]: to go on the test.

Click [**OK**] button. The screen will display the following menu. See Figure 08.

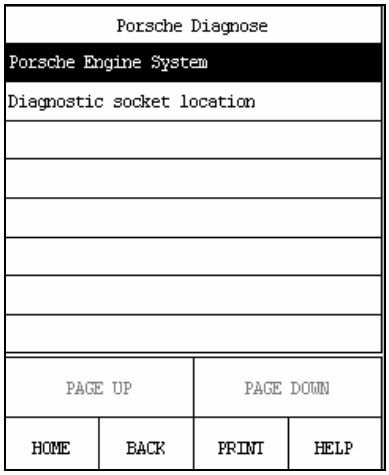

Figure 08

Note:
If you are not sure where the diagnostic socket is located, please click [Diagnostic socket location]. An illustration with a blinking icon will appear on the screen to show where the diagnostic socket is. Click the blinking icon to get further details.

Click [**Porsche Engine System**]. The screen will display the function menu as shown in

Figure 09.

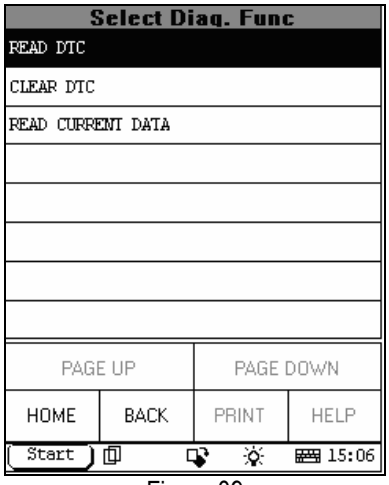

Figure 09

The following functions can be performed:

1. Read trouble code (READ DTC).
2. Clear trouble code (CLEAR DTC).
3. Read data stream (READ CURRENT DATA).

Here we describe the functions one by one.

Read Trouble Code

Click [**READ DTC**] in the function menu shown in Figure 09. X-431 starts to read trouble code. The screen will display the result if the code is read successfully. Figure 10 shows an example of the test result.

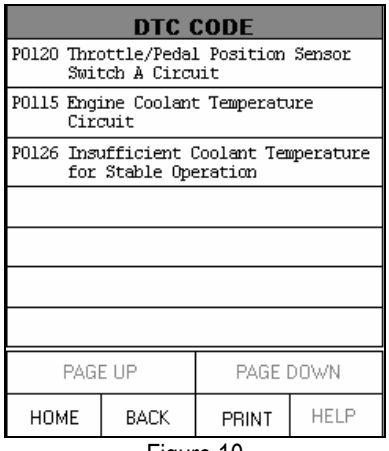

Figure 10

If printer is ready, the test result can be printed out by clicking **[PRINT]** button.

Button description:

- ***[HOME]: to return to the home page of vehicle diagnosis.***
- ***[BACK]: to go back to the previous interface.***
- ***[PRINT]: to print out the test result.***

Figure 11 shows an example of printed report.

Figure 11

Clear Trouble Code

Click [**CLEAR DTC**] in the function menu shown in Figure 09. X-431 starts to clear the trouble code. When the code is cleared successfully, the screen will display the message as shown in Figure 12.

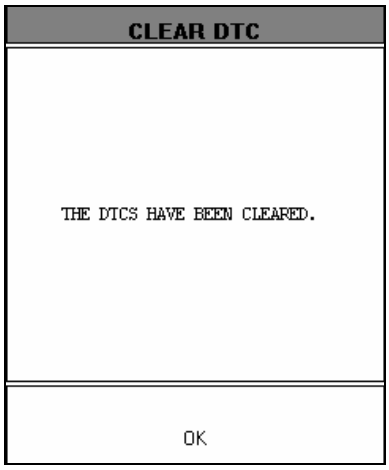

Figure 12

Click [**OK**] button to return to the function menu.

Read Data Stream

Click [**READ CURRENT DATA**] in the function menu shown in Figure 09. The screen will display the data stream menu of the tested vehicle as shown in Figure 13.

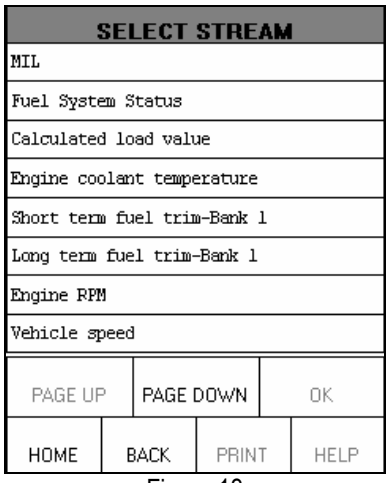

Figure 13

Click one or more items to select what you want to see.

Button description:

- ***[PAGE DOWN]: to display the next page of data stream items.***
- ***[HOME]: to return to the home page of vehicle diagnosis.***
- ***[BACK]: to go back to the previous interface.***

As shown in Figure 14, the selected items will be highlighted.

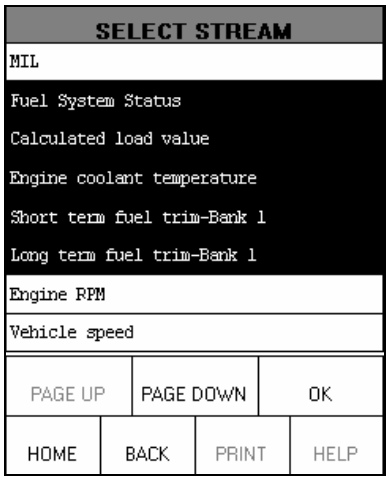

Figure 14

Button description:

- ***[PAGE DOWN]: to display the next page of data stream items.***
- ***[OK]: to display the live value of the selected data stream items.***
- ***[HOME]: to return to the home page of vehicle diagnosis.***
- ***[BACK]: to go back to the previous interface.***

Click [**OK**] button. The screen displays the live value of the selected data stream items. See Figure 15.

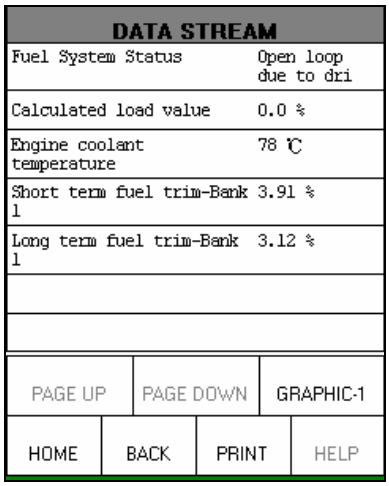

Figure 15

Button description:

- ***[GRAPHIC-1]: to graph a data stream item.***
- ***[HOME]: to return to the home page of vehicle diagnosis.***
- ***[BACK]: to go back to the previous interface.***
- ***[PRINT]: to print the test result.***

Figure 16 shows an example of printed report.

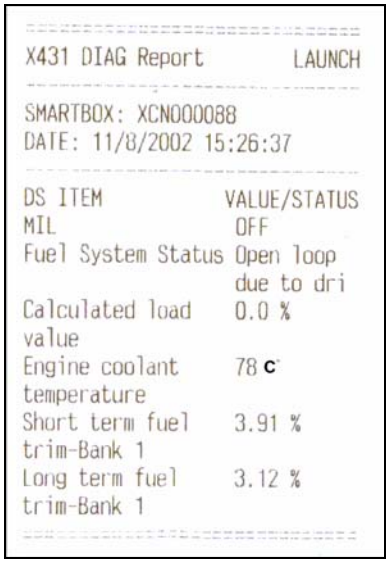

Figure 16

In the interface of data stream display, click [GRAPHIC-1] to graph the first data stream item. See Figure 17.

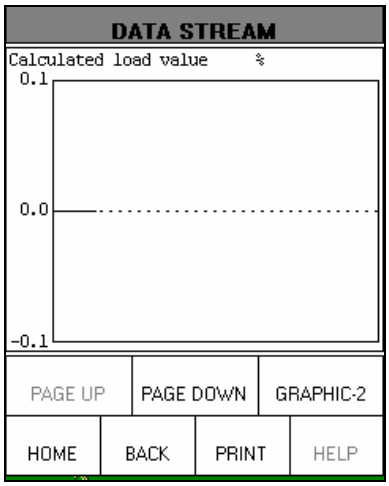

Figure 17

Button description:

- ***[PAGE DOWN]: to display the waveform of next data stream item.***
- ***[GRAPHIC-2]: to display the waveforms of 2 data stream items simultaneously.***
- ***[HOME]: to return to the home page of vehicle diagnosis.***
- ***[BACK]: to go back to the previous interface.***
- ***[PRINT]: to print the test result.***

In the interface of single waveform display, click [GRAPHIC-2] to display the waveforms of 2 data stream items. See Figure 18. It is convenient for comparison between two correlative data stream items.

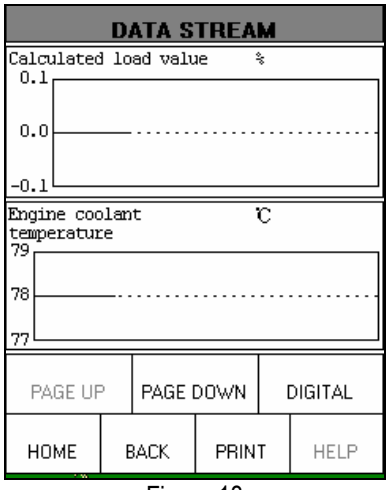

Figure 18

Note:

- ***The screen will display the live value of data stream again if the [DIGITAL] button is clicked in the interface.***
- ***The three display modes -- [DIGITAL], [GRAPHIC-1] and [GRAPHIC-2] can be switched in turn.***

Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

Disclaimer

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Order Information

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

1. Quantity
2. Part number
3. Item description

Customer Service

If you have any questions on the operation of the unit, please contact us:

Tel: 86-755-82269474,
Fax: 86-755-82264570,
E-mail: overseasales @ cnlaunch. com.

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is determined to be in warranty, it will be repaired or replaced at no charge. If the unit is determined to be out of warranty, it will be repaired for a nominal service charge plus return freight. Send the unit pre-paid to:

Attn: Overseas Department
LAUNCH TECH. CO., LTD.
Xinyang Building,
Bagua 4th Road,
Shenzhen, Guangdong Province,
China